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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,071

06/15/2006

Takayuki Takeuchi

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EXAMINER

BREVAL, ELMITO

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,071	Applicant(s) TAKEUCHI ET AL.	
	Examiner ELMITO BREVAL	Art Unit 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, and 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The response filed on 04/17/2009 has been considered.

Claims 1, 3-9 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over lechi et al., (US. Pub: 2003/0213952) in view of Arai et al., (JP: 07-297406). The Examiner is using the machine generated English translation of the foreign reference.

Regarding claim 1, lechi ('952) teaches (in at least fig. 2) a display apparatus in which a pixel is driven by using a thin film transistor including an organic material in at least an active layer, wherein the thin film transistor unit and a display element unit are laminated on substrate in this order, a transparent drain electrode (12; i.e. the pixel electrode); a source electrode (15) opposed the drain electrode; and an organic semiconductor layer (13; i.e. the active layer) interposed between the drain and the source electrode.

However, lechi ('952) does not teach the drain electrode has an area larger than that of the source electrode so as to cover the active layer on the source electrode entirely.

Further regarding claim 1, Arai ('406) teaches (abstract) a thin film semiconductor device comprised of, in part, drain electrodes (11, 12; i.e. pixel electrodes) formed on the substrate (10), and a source electrode (14) opposed the drain electrodes; wherein the drain electrodes have an area larger than the source electrode for the purpose of having a device with increase amount of current flow without increasing the element dimension of the device and to improve the luminance efficiency of the device

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to contemplate of using the drain electrode area structures of Arai in the device of lechi to cover the active layer on the source electrode substantially entirely for the purpose of having a device with increase amount of current flow without increasing the element dimension of the device and to improve the luminance efficiency of the device.

Regarding claim 4, lechi ('952) teaches (in at least fig. 2) a transparent drain electrode is formed on the substrate (it is understood to the examiner that the transparent electrode will suppress gas permeation and moisture).

Regarding claim 5, lechi ('952) teaches (in at least fig. 2) the transparent electrode (12) covers an entire surface of the display region.

Regarding claim 6, lechi ('952) teaches (in at least fig. 2) the substrate (11) suppresses gas permeation of oxygen and moisture.

Regarding claim 7, lechi ('952) teaches the substrate is selected from plastic ([0054]).

Regarding claim 8, lechi ('952) teaches the display element unit is an organic electroluminescent element.

Regarding claim 9, lechi ('952) teaches (in at least fig. 2) the thin film transistor includes an organic semiconductor layer (13).

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over lechi et al., (US. Pub: 2003/0213952) in view of Morita et al., (JP: 2003-084686). The Examiner is using the machine generated English translation of the foreign reference.

Regarding claim 1, lechi ('952) teaches (in at least fig. 2) a display apparatus in which a pixel is driven by using a thin film transistor including an organic material in at least an active layer, wherein the thin film transistor unit and a display element unit are laminated on substrate in this order, a transparent drain electrode (12; i.e. the pixel electrode); a source electrode (15) opposed the drain electrode; and an organic semiconductor layer (13; i.e. the active layer) interposed between the drain and the source electrode.

However, lechi ('952) does not teach the drain electrode has an area larger than that of the source electrode so as to cover the active layer on the source electrode entirely.

Further regarding claim 1, Morita ('686) teaches ([0017]) a display device comprised of, in part, a drain electrode with area (W1) greater than the source electrode area (w2) for the purpose of increasing the current flow and to improve the luminance efficiency of the device.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to contemplate of using the drain electrode structure of Morita into the device of Iechi for the purpose of increasing the current flow and to improve the luminance efficiency of the device.

Regarding claim 3, Morita ('686) teaches ([0026]) the current amount per unit area can be made optimal structure to enlarge by increasing an electrode with the larger effective channel width (i.e. drain electrode/or pixel) 2.5 times from 1.2 times of the width of the electrode with smaller effective channel width (i.e. the source electrode; thus, it is considered from Morita's disclosure the source electrode does have an area not less than 25% of the size of the pixel electrode/drain). The reason for combining is the same as for claim 1.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELMITO BREVAL whose telephone number is (571)270-3099. The examiner can normally be reached on M-F (8:30 AM-5:00 Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on (571)-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2889

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 9, 2009
/Elmito Breval/
Examiner, Art Unit 2889

/Joseph L. Williams/
Primary Examiner, Art Unit 2889